

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF NORTH MERCER)	
WATER DISTRICT, OF MERCER COUNTY,)	
KENTUCKY, FOR (1) A CERTIFICATE)	
OF PUBLIC CONVENIENCE AND NECES-)	
SITY, AUTHORIZING AND PERMITTING)	
SAID WATER DISTRICT TO CONSTRUCT)	
A WATERWORKS CONSTRUCTION PROJECT,)	
CONSISTING OF EXTENSIONS, ADDITIONS,)	
AND IMPROVEMENTS TO THE EXISTING)	CASE NO. 8310
WATERWORKS SYSTEM OF THE DISTRICT;)	
(2) APPROVAL OF PROPOSED CHANGE IN)	
DISTRICT SERVICE BOUNDARIES;)	
(3) APPROVAL OF THE PROPOSED PLAN)	
OF FINANCING OF SAID PROJECT; AND)	
(4) APPROVAL OF THE INCREASED)	
WATER RATES PROPOSED TO BE CHARGED)	
BY THE DISTRICT TO CUSTOMERS OF)	
THE DISTRICT)	

O R D E R

Preface

On August 7, 1981, the North Mercer Water District ("North Mercer") filed an application for approval of financing and certification of construction of a waterworks improvements project. The objectives of this project include upgrading the capacity and reliability of existing water distribution facilities and providing service to about 344 applicants for service located along a north-south corridor west of US 27. About 742 customers, primarily located along

the US 27 north-south corridor, are presently served by North Mercer.

North Mercer also requested approval of adjustments to its rates to provide for coverage of its pro forma increases in operating costs and debt service.

Project financing totals \$1,598,000 and includes \$111,800 from applicants for service, a Farmers Home Administration ("FmHA") grant of \$242,000 and an FmHA loan of \$1,245,000. The loan repayment period is to be 40 years at 5 percent interest with principal repayment deferred for the first 2 years. Waterworks revenue bonds are to be issued as security for the loan. Before making a commitment to purchase North Mercer's current bonds, the FmHA required defeasement of existing bonds.

The expanded service area boundaries of North Mercer as approved October 20, 1981, by the Mercer County Fiscal Court include all of Mercer County except the areas served by the City of Harrodsburg and the Lake Village Water Association. All of the proposed construction will be within North Mercer's service area boundaries.

The plans and specifications for the construction, as prepared by Kennoy Engineers, Inc., of Lexington, Kentucky, ("Engineer"), have been approved by the Division of Water of the Department for Natural Resources and Environmental Protection.

Commission hearings were held in Frankfort, Kentucky,

on September 14, 1981, and August 19, 1982. The second hearing was held after the August 3, 1982, receipt of construction bids. At the second hearing, North Mercer filed its final engineering report and introduced amendments and supplements to documents that had been previously filed in this matter. There were no intervenors in these proceedings.

Test Period

North Mercer proposed, and the Commission has accepted, the 12-month period ending December 31, 1981, as the test period.

Revenues and Expenses

North Mercer had a net operating loss of \$44 for the test period. In order to reflect normal operating conditions subsequent to completion of the proposed construction project, North Mercer proposed numerous adjustments to revenues and expenses resulting in adjusted net operating income of \$18,882. North Mercer supplied a billing analysis for June 1982 to supplement the financial data for the test period. As the difference in the volume of activity during these two periods leads to a distortion in test period net operating income, the Commission has reconciled and adjusted the test period income statement for changes in variable expenses.

North Mercer estimated that its proposed new customers will use water at a rate equal to 90 percent of the usage of

its present customers. Since North Mercer neither justified nor explained this usage reduction, it has been disallowed by the Commission. Upon examination of the evidence presented by North Mercer, the Commission has determined that revenues from the present and proposed customers would increase to \$206,034 under present rates.

North Mercer also listed a test year figure of \$84,666 for purchased water expense. This figure was added to the proposed purchased water expense for new customers of \$28,982 to arrive at a total purchased water expense of \$113,648. However, in its billing analysis, North Mercer indicated that expected purchases will be less than the amounts purchased in the test year. Accordingly, the Commission has adjusted purchased water expense by \$15,081 to reconcile the inconsistency between North Mercer's billing analysis and its projected expenses.

In the opinion of the Commission, certain volume adjustments are inappropriate. North Mercer estimated that all of its operation and maintenance expenses would increase in proportion to the expected increase in customers. The Commission is of the opinion that, while some of the operation and maintenance expense accounts are variable and will increase due to customer growth, there is no evidence to support the assumption that all expenses vary directly with customer growth.

The Commission has reviewed the operating and

maintenance expenses and has established those that should vary directly with a change in volume, those that should vary partially with a change in volume and those that should remain fixed. Based upon this review, the Commission has determined that the reasonable level of operation and maintenance expenses is \$53,735, a reduction of \$5,639 from total operation and maintenance expenses proposed by North Mercer.

North Mercer also proposed that depreciation expense of \$48,896 be allowed to include depreciation on contributed property. It is the Commission's policy to compute depreciation expense on the basis of original cost of the plant in service less contributions in aid of construction, as the utility should not be allowed cost recovery on that portion of the plant which has been provided at no cost. The acceptable depreciation expense for rate-making purposes after proposed construction is \$29,456, a reduction of \$19,440 from the original depreciation expense proposed by North Mercer.

Therefore, the Commission finds that North Mercer's adjusted test period operations are as follows:

	<u>Actual</u>	<u>Adjustments</u>	<u>Adjusted</u>
Operating Revenue	\$152,431	\$53,603	\$206,034
Operating Expenses	<u>152,475</u>	<u>29,283</u>	<u>181,758</u>
Net Operating Income	<u>\$ (44)</u>	<u>\$24,320</u>	<u>\$ 24,276</u>

The Commission has included its calculations in Appendix B to this Order.

Revenue Requirements

The Commission has used the debt service coverage method to determine appropriate revenue requirements for North Mercer. North Mercer's pro forma average debt service for the next 5 years, including financing of the proposed construction project, is \$73,804. North Mercer's debt service coverage on adjusted net operating income of \$24,276 plus actual interest income of \$4,072 is .38X. The Commission is of the opinion that a debt service coverage of 1.2X is fair, just and reasonable to meet the requirements of North Mercer's bondholders and to pay expected operating expenses. The rates as proposed by North Mercer based on test period usage and expected usage found reasonable by the Commission for new customers would produce annual revenues of \$280,118. This level of revenues provides income of \$28,628 and a debt service coverage of 1.38X, which the Commission finds to be in excess of the debt service coverage needed by North Mercer. Consequently the Commission has adjusted the proposed increase downward to produce revenues of \$270,323, an increase of \$60,217.^{1/} This increase will provide the 1.2

^{1/} Adjusted operating expenses	\$181,758
1.2 X DSC (\$73,804)	88,565
Revenue Requirements	<u>\$270,323</u>
Less: Adjusted Operating Revenue	210,106
Increase Allowed	<u>\$ 60,217</u>

debt service coverage which the Commission finds to be the fair, just, and reasonable coverage for North Mercer to insure its financial stability and to provide reliable and adequate service to its customers.

SUMMARY

The Commission, after consideration of the record and being advised, is of the opinion and finds that:

1. Public convenience and necessity require that the construction proposed in the application and record be performed and that a certificate of public convenience and necessity be granted.

2. The proposed construction will provide for the flow of the greater quantities of water that will be needed to serve the expanded distribution system and should improve hydraulic flow and service reliability to present customers. It includes two standpipe-type storage tanks, one with a capacity of 92,000 gallons and one with a capacity of 282,000 gallons; more than 44 miles of PVC distribution mains of varying pipe size as follows: 75 feet of 10-inch pipe, 30,290 feet of 8-inch pipe, 190,410 feet of 6-inch pipe, 13,085 feet of 4-inch pipe, and 290 feet of 2-inch pipe; and 11 fire hydrants and other appurtenant construction. The cost of this construction, according to the bids received August 3, 1982, will be about \$1,110,130, with a total project cost of \$1,598,000 after the addition of \$488,670 in

non-construction costs including easements, fees, interest paid during construction and contingency costs.

3. Any deviations from the approved construction which could adversely affect service to any customer should be subject to the prior approval of this Commission.

4. The proposed borrowing of \$1,245,000 is for lawful objects within the corporate purposes of North Mercer, is necessary and appropriate for and consistent with the proper performance of services to the public by North Mercer, should not impair its ability to perform these services and is reasonably necessary and appropriate for such purposes.

5. North Mercer's plan of financing in the amount of \$1,598,000 should be approved.

6. A 5/8-inch x 3/4-inch meter should be the standard customer service meter and should be installed at all points of service unless the customer provides sufficient justification for the installation of a larger meter. Further, any customer with a larger meter, with the exception of special contract customers, should pay for the service in accordance with North Mercer's approved meter size rate schedules.

7. North Mercer should furnish duly verified documentation of the total cost of this project including the cost of construction and all other capitalized costs (engineering, legal, administrative, etc.) within 60 days of the date of substantial completion of this construction.

8. North Mercer's contract with its Engineer should

require the provision of full-time resident inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. This supervision and inspection should insure that the construction work is done in accordance with the contract plans and specifications and in conformance with the best practices of the construction trades involved in the project.

9. North Mercer should require the Engineer to furnish a copy of the record plans and a signed statement that the construction has been satisfactorily completed in accordance with the contract plans and specifications within 60 days of the date of substantial completion of this construction.

10. North Mercer should file with the Commission a copy of all contractual agreements for the provision of services which are subject to the approval of this Commission.

11. The rates proposed by North Mercer will produce revenues in excess of the revenues found reasonable herein and should be denied upon application of KRS 278.030.

12. The rates and charges in Appendix A are the fair, just, and reasonable rates to be charged by North Mercer in that they should produce gross annual revenue of \$270,323.

IT IS THEREFORE ORDERED that North Mercer be and it hereby is granted a certificate of public convenience and necessity to proceed with the proposed construction project as set forth in the plans and specifications of record herein.

IT IS FURTHER ORDERED that any deviations from the approved construction which could adversely affect the service to any customer shall be subject to the prior approval of this Commission.

IT IS FURTHER ORDERED that North Mercer be and it hereby is authorized to borrow \$1,245,000 at 5 percent interest from the FmHA over a 40-year period with payment of principal deferred for 2 years and to issue waterworks revenue bonds as security therefor.

IT IS FURTHER ORDERED that North Mercer's plan of financing in the amount of \$1,598,000 be and it hereby is approved. Further, this \$1,598,000 in project funds shall be used only for the lawful objects of North Mercer as set forth in the application.

IT IS FURTHER ORDERED that a 5/8-inch x 3/4-inch meter shall be the standard customer service meter and shall be installed at all points of service unless the customer provides sufficient justification for the installation of a larger meter. Further, any customer with a larger meter, with the exception of special contract customers, shall pay for that service in accordance with North Mercer's approved meter size rate schedule.

IT IS FURTHER ORDERED that North Mercer shall file with the Commission duly verified documentation which shows the total costs of construction herein certificated including all capitalized costs (engineering, legal, administrative,

etc.) within 60 days of the date of substantial completion of the proposed construction.

IT IS FURTHER ORDERED that the contract between North Mercer and its Engineer shall require the provision of full-time resident inspection under the general supervision of a professional engineer with a Kentucky registration in civil or mechanical engineering. This supervision and inspection shall insure that the construction work is done in accordance with the contract plans and specifications and conforms with the best practices of the construction trades involved in the project.

IT IS FURTHER ORDERED that North Mercer shall require the Engineer to furnish the Commission with a copy of the record drawings and a signed statement that the construction has been satisfactorily completed and done in accordance with the contract plans and specifications within 60 days of the date of substantial completion of the proposed construction.

IT IS FURTHER ORDERED that North Mercer shall file with the Commission a copy of all contractual agreements for the provision of services or for the purchase of services which are subject to the approval of this Commission.

IT IS FURTHER ORDERED that the rates proposed by North Mercer be and they hereby are denied.

IT IS FURTHER ORDERED that the rates and charges in Appendix A be and they hereby are approved as the fair, just and reasonable rates and charges to be charged by North

Mercer for service on and after the date of this Order.

IT IS FURTHER ORDERED that within 30 days of the date of this Order, North Mercer shall file its tariff sheets setting out the rates and charges approved herein.

Nothing contained herein shall be deemed a warranty by the Commonwealth of Kentucky, or any agency thereof, of the financing herein authorized.

Done at Frankfort, Kentucky, this 1st day of October, 1982.

PUBLIC SERVICE COMMISSION

Marlin M. Cook
Chairman

Katherine Randall
Vice Chairman

Lee Parmer
Commissioner

ATTEST:

Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE
COMMISSION IN CASE NO. 8310 DATED OCTOBER 1,
1982

The following rates are prescribed for the customers served by North Mercer Water District. All other rates and charges not specifically mentioned herein shall remain the same as those in effect prior to the date of this Order.

Rates: Monthly

First	1,000 gallons	\$ 6.75 (Minimum Bill)
Next	2,000 gallons	2.90 per 1,000 gallons
Next	2,000 gallons	2.70 per 1,000 gallons
Next	5,000 gallons	2.50 per 1,000 gallons
Over	10,000 gallons	2.40 per 1,000 gallons

Loading Station

\$.50 per 160 gallons

APPENDIX B

APPENDIX TO AN ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 8310 DATED OCTOBER 1, 1982

CALCULATIONS

OPERATING REVENUES

Billing analysis based on June 1982 usage as
adjusted from proposed rates to existing rates
prior to any increase.

\$206,034

OPERATING EXPENSES

1) Purchased Water Expense

\$ 98,567

Purchases = (Estimated Sales + Line Loss)
x (Cost per M. Gal.)

Purchases = (78,900 + 13,219)(\$1.07) =
\$98,567

Line Loss = 14.35% or 13,219 M. Gal.
(1981 Annual Report)

Estimated Sales = 78,900 (Billing Analysis)

Cost per M. Gal. = \$1.07

2) Other Operation and Maintenance Expenses

Variable:

\$ 20,499

Maintenance of Meters \$ 770

Maintenance of Mains 2,516

Accounting & Collecting
($\frac{1}{2}$ variable) 7,747

Supplies & Expenses 4,238

Taxes Other Than Income
Taxes 1,818

\$17,087 + purchases

for 1981 (76,785

M. Gal.) =

\$.2225 per M. Gal.

\$.2225 x expected

purchases (92,119) = \$20,499

Other Variable:

\$ 6,851

Meter Reading Labor (40¢/meter x 1,086
customers x 12 mos./yr.) = \$5,213
Uncollectible Accounts (.00585% of
estimated sales) = \$1,638

Fixed:

\$ 26,385

Administrative & General Expense \$ 4,800
Office Supplies Expense 5,015
Accounting & Collecting ($\frac{1}{2}$ fixed) 7,747
Outside Services 3,150
Regulatory Commission Expense 1,500
Miscellaneous General Expense 1,664
Transportation Expense 732
Property Insurance 1,777

\$26,385

3) Depreciation

\$ 29,456

Expense for 1981 = \$ 20,410 = 2.71%
Total Plant \$750,416

Total Depreciable Plant (\$750,416) less Contributions
in Aid of Construction (\$582,283) =
Allowable Depreciable Plant (\$168,133) x
2.71% = \$4,556 present plant

Allowable Depreciation on Proposed Plant =
\$1,245,000 @ 2% = \$24,900
Total Allowable Depreciation = \$4,556 +
\$24,900 = \$29,456

TOTAL OPERATING EXPENSES

\$181,758

OPERATING INCOME

\$ 24,276